### FMC Agreement No. 201/92-004



Port Authority Lease No. L-PN-264 Supplement No. 4

### SUPPLEMENTAL AGREEMENT

THIS AGREEMENT, made ab initio as of the 1<sup>st</sup> day of December, 2000, by and between THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY (hereinafter called "the Port Authority") and PORT NEWARK CONTAINER TERMINAL LLC (hereinafter called "the Lessee"),

### WITNESSETH, That:

WHEREAS, heretofore and as of December 1, 2000, the Port Authority and the Lessee entered into an agreement of lease (hereinafter, as the said agreement of lease has been amended, modified and supplemented, called "the Lease") covering premises at Port Newark, in the City of Newark, County of Essex and State of New Jersey; and

WHEREAS, the Port Authority and the Lessee desire to amend the Lease;

NOW, THEREFORE, for and in consideration of the foregoing and the agreements hereinafter contained the Port Authority and the Lessee hereby agree as follows:

- 1. The addendum attached hereto and marked "Addendum No. 1 to Exhibit I to Lease No. L-PN-264 between The Port Authority of New York and New Jersey and Port Newark Container Terminal LLC" is hereby made a part of Exhibit I of the Lease as set forth in Section 9 of the Lease (which addendum is herein and in the Lease referred to as "Addendum I")
- 2. The paragraph constituting Section 44 of the Lease, commencing with the phrase, "Subject to the provisions" and ending with the phrase, "Section 9 hereof" is hereby deleted in its entirety from the Lease ab initio as of the 1<sup>st</sup> day of December 2000 and the following paragraphs (a) through (f) shall be deemed to have been inserted ab initio as of the 1<sup>st</sup> day of December, 2000 in lieu thereof to read as follows:
- "(a) The following terms when used in this Agreement shall have the respective meanings given below:
- (1) 'Added Environmental Survey' shall mean Addendum I attached to Supplement No 4 of the Lease, as amended.

- (2) 'Added Space' shall collectively mean the open area shown in stipple and the water area shown in honeycomb on Exhibit A, Sheet 4 of the Lease.
  - (3) 'Effective Date' shall mean June 1<sup>st</sup>, 2002.
- (b) Effective at 12:01 o'clock A.M. on the Effective Date, in addition to the premises heretofore let to the Lessee under the Lease, the letting of which shall continue in full force and effect, the Port Authority hereby lets to the Lessee and the Lessee hires and takes from the Port Authority upon all the terms, provisions, covenants and conditions of the Lease, as amended, the Added Space at Port Newark in the City of Newark, in the County of Essex and State of New Jersey, together with the buildings, structures, fixtures, improvements, and other property, if any, of the Port Authority located or to be located or constructed therein or thereon (the Added Space and all of the foregoing buildings, structures, fixtures, improvements, and other property, if any, of the Port Authority being herein collectively called the "Added Premises"), all of the Added Premises to be and become a part of the premises let under the Lease subject to all the terms, provisions, covenants and conditions of the Lease, as amended.
- (c) In the event that the Added Environmental Survey indicates that remediation of the Added Space and/or the assumption of additional obligations is required, such remediation and/or additional obligations shall be subject to and in accordance with the provisions of Section 9 of this Agreement.
- (d) Effective as of the Effective Date, the Lessee shall pay an annual basic rental to the Port Authority for the Added Premises (which basic rental is herein called the 'Added Premises Basic Rental') throughout the remainder of the term of the letting as follows:
- (i) during the period from the Effective Date through November 30, 2002, the Added Premises Basic Rental shall be in the amount of One Hundred Fifty-one Thousand Three Hundred Fifty-seven Dollars and Fifty Cents (\$151,357.50) per annum and shall be payable in advance in equal monthly installments of Twelve Thousand Six Hundred Thirteen Dollars and Thirteen Cents (\$12,613.13) on the first day of each calendar month thereafter occurring during such period; and
- (ii) during the period from December 1, 2002 through November 30, 2030, the Added Premises Basic Rental shall be in the amount of Two Hundred One Thousand Eight Hundred Ten Dollars and No Cents (\$201,810.00) per annum and shall be payable in advance in equal monthly installments of Sixteen Thousand Eight Hundred Seventeen Dollars and Fifty Cents (\$16,817.50) on the first day of each calendar month thereafter occurring during such period, as the same shall be adjusted in accordance with the provisions of paragraph (e) of this Section
- (e) The Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section, as the same may have been most recently adjusted in accordance with this paragraph (e), shall be adjusted during the term of the letting in accordance with the provisions of this paragraph (e).

### (1) As used in this paragraph (e):

- (i) 'Index' shall mean the Consumer Price Index for All Urban Consumers New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) published by the Bureau of Labor Statistics of the United States Department of Labor.
- (ii) 'Added Premises Basic Rental Base Period' shall mean, as the context requires, the calendar month of November 2001 and the calendar month of November (excluding November 2029 and 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.
- (iii) 'Added Premises Basic Rental Adjustment Period' shall mean, as the context requires, the calendar month of November 2002 and the calendar month of November (excluding November 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.
- (iv) 'Added Premises Basic Rental Adjustment Date' shall mean, as the context requires, December 1, 2002 and each anniversary of such date which thereafter occurs during the term of the letting under this Agreement.
- (v) 'Added Premises Basic Rental Percentage Increase' shall mean the percentage of increase in the Index on each Added Premises Basic Rental Adjustment Date equal to a fraction the numerator of which shall be the Index for the Added Premises Basic Rental Adjustment Period immediately preceding such Added Premises Basic Rental Adjustment Date less the Index for the Added Premises Basic Rental Base Period preceding such Added Premises Basic Rental Adjustment Period by one year and the denominator of which shall be the Index for the Added Premises Basic Rental Base Period preceding such Added Premises Basic Rental Adjustment Period by one year.
- Adjustment Date and for the period commencing with such Added Premises Basic Rental Adjustment Date and continuing through to the day preceding the next Added Premises Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, in lieu of the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section the Lessee shall pay a Added Premises Basic Rental at a rate per annum equal to the greater of:
  - (i) the sum obtained by adding to the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) the product obtained by multiplying such Added Premises Basic Rental by one hundred percent (100%) of the Added Premises Basic Rental Percentage Increase for such Added Premises Basic Rental Adjustment Date; provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be set forth in paragraph (e)(ii) of this Section; or

- (ii) the product obtained by multiplying the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred two and five one-hundredths percent (102.5%); provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section
- Notwithstanding any other provision of this Agreement, the Added Premises Basic Rental that shall be payable pursuant to paragraph (d)(ii) of this Section and this paragraph (e) commencing with each Added Premises Basic Rental Adjustment Date and continuing through to the day preceding the following Added Premises Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, shall in no event exceed the product obtained by multiplying the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred four percent (104%); provided, however, that for purposes of the calculation of the Added Premises Basic Rental payable for the one-year period commencing on December 1, 2002, the Added Premises Basic Rental payable immediately prior to such Added Premises Basic Rental Adjustment Date shall be deemed to be the Added Premises Basic Rental set forth in paragraph (d)(ii) of this Section. For example, if the Added Premises Basic Rental Percentage Increase for the calendar month of November, 2002 is shown to be three percent (3%) then the Added Premises Basic Rental payable under paragraph (d)(ii) of this Section and this paragraph (e) for the one-year period commencing December 1, 2002 shall be \$201,810.00 plus three percent (3%) thereof or \$207,864.30, but if (1) said increase is shown to be two percent (2%) or less then the Added Premises Basic Rental for that one-year period shall be \$206,855.25, and if (2) said increase is shown to be five percent (5%) or more then the basic annual rental for that one-year period shall be \$209,882.40.
- adjustment referred to in paragraph (b) of this Section is not available on the effective date of such adjustment, the Lessee shall continue to pay the Added Premises Basic Rental at the annual rate then in effect subject to retroactive adjustment at such time as the specified Index becomes available, provided, however, that the Port Authority may at its option substitute for such Index the Index for the latest preceding month then published to constitute the specified Index. In the event the United States Consumer Price Index for All Urban Consumers New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) shall hereafter be converted to a different standard reference base or otherwise revised or the United States Department of Labor shall cease to publish the United States Consumer Price Index for All Urban Consumers New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100), then for the purposes hereof there shall be substituted for the Index such other appropriate index or indices properly reflecting changes in the value of current United States money in a manner similar to that established in the Index used in the latest adjustment as the Port Authority may in its discretion determine.
- (5) If after an adjustment in Added Premises Basic Rental shall have been fixed for any period, the Index used for computing such adjustment shall be changed

or adjusted, then the rental adjustment for that period shall be recomputed and from and after notification of the change or adjustment, the Lessee shall make payments based upon the recomputed rental and upon demand shall pay any excess in the Added Premises Basic Rental due for such period as recomputed over amounts theretofore actually paid on account of the Added Premises Basic Rental for such period. If such change or adjustment results in a reduction in the Added Premises Basic Rental due for any period prior to notification, the Port Authority will credit the Lessee with the difference between the Added Premises Basic Rental as recomputed for that period and amounts of Added Premises Basic Rental actually paid.

- (6) If any adjustment of Added Premises Basic Rental referred to in this paragraph (e) of this Section is effective on a day other than the first day of a calendar month, there shall be payable in advance on the effective date of rental adjustment an installment of Added Premises Basic Rental equal to 1/12th of the increment of annual Added Premises Basic Rental as adjusted multiplied by a fraction, the numerator of which shall be the number of days from the effective date of the rental adjustment to the end of the calendar month in which the rental adjustment was effective and the denominator of which shall be the number of days in that calendar month.
- (f) The Lessee acknowledges that is has not relied upon any representation or statement of the Port Authority or its Commissioners, officers, employees or agents as to the condition of the Added Premises or the suitability thereof for the operations permitted on the Added Premises by this Agreement. The Port Authority shall deliver the Added Premises in its presently existing 'as is' condition. The Lessee, prior to the execution of Supplement No. 4 to the Lease, thoroughly examined the Added Premises as existing and has found the same to be suitable and satisfactory for the operations of the Lessee contemplated and permitted under this Agreement. The Lessee agrees to and shall take the Added Premises in its 'as is' condition and the Port Authority shall have no obligations under this Agreement for finishing work or preparation of any portion of the Added Premises for the Lessee's use. Without limiting any obligation of the Lessee to commence operations under this Agreement at the time and in the manner stated elsewhere in this Agreement, the Lessee agrees that no portion of the Added Premises will be used initially or at any time during the letting which is in a condition unsafe or improper for the conduct of the operations of the Lessee, so that there is possibility of injury or damage to life or property, and the lessee further agrees that before any use it will immediately correct any such unsafe or improper condition."
- 3. Effective as of the Effective Date, subparagraph (a)(29) of Section 9 of the Lease shall be deemed amended by redesignating clause (iv) of said subparagraph (a)(29) as clause "(v)" and by inserting the following new clause (iv) immediately after clause (iii) thereof to read as follows:
- "(iv) the area within a radius of one hundred (100) feet from Soil Boring MW-1 as identified in the Initial Environmental Survey,"
- 4. It is recognized that the RAW contained tests results for certain Analyzed Items for monitoring wells MW-5 and MW-11 identified in the Initial Environmental Survey which were different than the test results set forth in the Initial Environmental Survey. It is hereby agreed that the test results set forth in the exhibit attached hereto, hereby made a part

hereof and marked "Exhibit I-A" and entitled "Addendum No. I to Initial Environmental Survey" shall be and become a part of the Initial Environmental Survey and the ground water test results for each of the Analyzed Items set forth in Exhibit I-A attached hereto shall with respect to monitoring wells MW-5 and MW-11 replace the tests results for such Analyzed Items set forth in the Initial Environmental Survey attached to the Lease when it was executed, provided, however, in making any determination of the concentration of arsenic in the ground water at the locations of MW-5 and MW-11, the ground water at the locations of MW-5 and MW-11 shall be sampled and analyzed using the United States Environmental Protection Agency low-flow sampling methods to minimize turbidity.

- obligations of the Lessee under the Lease as herein amended, including without limitation paragraph (n) of Section 9 of the Lease, as herein amended, the Lessee agrees that it shall promptly locate, overdrill and decommission at its sole cost and expense and in accordance with all Environmental Requirements, including without limitation NJAC7:9-9.1, the wells located on the premises that were installed as part of the Initial Environmental Survey. Without limiting the generality of the foregoing, a Well Abandonment Report is to be completed for each well and signed by the certified well sealer performing the work. If during the overdrilling, the well cannot be found, the certified well sealer must indicate in the Well Abandonment Report that every effort has been made to locate the well and provide an explanation as to why the well cannot be located. Photo documentation showing the overdrilling at the location of the former well is to be performed. All Well Abandonment Reports, including photo documentation, is to be provided to the Manager of the Facility.
- 6. Neither the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Lessee with any liability, or held liable to the Lessee under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach thereof.
- 7. This Agreement, together with the Lease (to which it is supplementary) constitutes the entire agreement between the Port Authority and the Lessee on the subject matter, and may not be changed, modified, discharged or extended except by instrument in writing duly executed on behalf of both the Port Authority and the Lessee. The Lessee agrees that no representations or warranties shall be binding upon the Port Authority unless expressed in

writing in the Lease or in this Agreement.

(Secretary)

IN WITNESS WHEREOF, the Port Authority and the Lessee have executed these presents as of the date first above written.

ATTEST:

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

RICHARD M. LARRABEE

PORT NEWARK CONTAINER TERMINAL LLC

(Title) President ANAGER

DIRECTOR, PORT COMMERCE DEPT. (Title)

(Seal)

(Seal)

WITNESS:

Secretary)

nn A. McAleer Commission Expires 10/16/2007

NOTARY PUBLIC OF NEW JERSEY

**APPROVED:** 

**TERMS** 

Exhibit A-1

Amendment No. 1 to Initial Environmental Survey

	MW-5	MW-11
Silver	1.5	ND
Arsenic	8	8
Chromium	2.1	ND
Copper	1.3	1.1
Thallium	ND	9.1
Nickel	ND	4.4
Selenium	2.2	ND
Zinc	36.1	38.4

Note: Values are stated in parts per billion

Initialed:

For the Port Authority

For the Lessee

JOAnn A. McAleer NOTARY PUBLIC OF NEW JEISEY Commission Expires 10/16/2007

### ADDENDUM NO. 1

### to EXHIBIT I

to Lease No. L-PN-264

### Between

### THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

### And

### PORT NEWARK CONTAINER TERMINAL LLC

Initialed

For the Port Authority

DPH

For the Lessee

NOTARY PUBLIC OF NEW JESSEY Commission Expires 10/16/2007

### ADDED PREMISES SUBSURFACE BASELINE REPORT PORT NEWARK CONTAINER TERMINAL LLC

**JULY 2001** 

### THE ADDED PREMISES PORT NEWARK CONTAINER TERMINAL LLC ENVIRONMENTAL BASELINE ASSESSMENT

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### **SECTION 1.0**

### INTRODUCTION

The purpose of this report is to establish surface and subsurface baseline conditions for an approximately 3.0 acre parcel of the former Naparano Iron and Metal Company (site). The location of the site is shown on Figure 1. The approximately 3.0 acre area is shown in Figure 2. The investigation on this portion of the property included the installation of 5 soil borings, 2 of which were completed as monitoring wells. Locations of the soil borings and monitoring wells are shown on Figure 3.

The work performed as part of this investigation was conducted in accordance with *Technical Requirements for Site Remediation* (TRSR) (N.J.A.C 7:26E) and the New Jersey Department of Environmental Protection's (NJDEP) *Field Sampling Procedures Manual*, May 1992.

The sampling results were compiled into data summary tables to document existing conditions at the particular sample locations.

### **SECTION 2.0**

### FIELD ACTIVITIES

In order to characterize the site in regard to potential contaminants and provide information about the geology and hydrogeology, a total of 5 soil borings were installed at the site. 2 of the 5 borings were completed as monitoring wells. The locations of the soil borings and monitoring wells are presented in Figure 3. In general, the soil borings were advanced until groundwater was observed in order to evaluate the potential for the presence and migration of hazardous substances.

### 2.1 SOIL SAMPLING PROGRAM

The soil sampling program investigation followed the requirements specified in N.J.A.C. 7:26E-3.6. At all boring locations the first 6 to 8 ft of soils were drilled and sampled using a hand auger in an attempt to limit any contact with underground utilities. Soil borings were completed using a 4 and 5/8 inch inside diameter hollow-stem auger. After penetration of surface features, continuous split-spoon soil samples were collected at 2-foot intervals using a 2-inch-diameter split-spoon. All soils were (hand-auger samples and split-spoon cores) characterized by the on-site geologist and screened using an HNu photoionization detector. Additionally, HNu readings were recorded in the breathing zone of the on-site workers, and headspace readings were recorded from soil samples collected from each discrete 2-foot sampling interval. All information was recorded on boring log forms or in bound field logbooks.

Ten discrete soil samples were collected for contract laboratory analysis. For each boring, one soil sample was collected at a depth of 6 to 18 inches below the soil surface and a second sample procedure was collected at a distance of 0 to 6 inches above the saturated zone. HNu readings of the headspace from each sampling interval ranged from 0.0 to 1.0 parts per million (ppm). Field screening results along with the boring logs are provided as Appendix A. All soil samples were analyzed for total petroleum hydrocarbons (TPHC) and the complete list of priority pollutants with a forward library search (PP+40), including xylenes. Soil samples for volatile analysis were collected using methanol extraction methodology. In addition to collecting soil samples, trip blanks were submitted for laboratory analyses during the soil sampling task of this investigation. Field blanks and duplicate samples were not collected during the soil sampling phase of the investigation. All Quality Assurance/Quality Control (QA/QC) procedures are detailed in Section 2.3 of this report.

Soil samples were transferred immediately to laboratory prepared sample containers, labeled, packed, and shipped for analysis in accordance with N.J.A.C. 7:26E 2.1. Soil samples were processed and labeled consistent with Section 2.3.3 of this document. Furthermore, sample chain-of-custody's (COCs) were prepared for all samples collected as part of this investigation. Sample documentation and COCs were prepared consistent with procedures detailed in Section 2.3.3. Each piece of sampling equipment was decontaminated prior to use at each new sample location and

prior to sampling the respective soil strata. All sampling equipment was constructed of stainless steel. For additional information on equipment decontamination procedures, see Section 2.3.2. Upon completion of each boring location, all soils and derived waste generated were handled consistent with the site specification Waste Management Plan detailed in the site-specific investigation work plan.

### 2.2 GROUNDWATER SAMPLING PROGRAM

The groundwater investigation was conducted as per N.J.A.C. 7:26E-3.7. The program included the installation of two overburden on-site monitoring wells. The wells were installed in select boreholes created during the soil boring program. Approximate locations of these wells are shown on Figure 3. Craig Drilling, Inc. (a New Jersey-licensed well driller) installed the monitoring wells. The well driller obtained the required NJDEP well permits. The monitoring well construction logs are included in Appendix A.

### 2.2.1 Monitoring Well Installation

Well construction materials consisted of 2-inch-diameter, schedule 40 PVC, well screens and riser pipe. The monitoring wells were constructed with 0.020-inch (20 slot) well screens; location-specific geologic conditions dictated well screen length. The well screens ranged in length from 10 to 15 ft in length. Groundwater was encountered during the drilling activities at approximately 8.0 ft bgs. The annular space between the well screen and the formation was filled with filter pack to an elevation approximately 2 ft above the top of the screen. The remaining filter pack consisted of approximately 1 foot of finer sand on top of the filter pack. This finer filter pack was designed to act as a sand choke between the formation material and the well materials, and to limit the potential for grout to enter the well from above.

A bentonite seal was emplaced above the filter pack to prevent infiltration to the cement grout into the filter pack and well screen. The seal thickness was dependent on the stratigraphy at each location and ranged from 0.5 to 1.0 ft.

A cement-bentonite grout mixture was placed above the seal and extended to ground surface. All wells were completed with flush-mount construction casings. Cement pads were constructed around each well to provide drainage away from the wells. Protective PVC caps were placed on the PVC riser pipe. Locks were placed on the outside of the protective casings. Metal tags with the monitoring well I.D. number and the NJDEP well permit number were affixed to the manhole covers. Each well was given a locking vacuum cap. A concrete pad was constructed and a flush-mounted manhole cover was grouted in place to secure these locations.

### 2.2.2 Well Development

Each monitoring well was developed in accordance with the TRSR. Monitoring well development was performed in order to meet the following objectives:

- Remove materials that may have accumulated in the openings of the well screen during installation, and key the well screen and filter pack into the formation being monitored.
- Remove fine materials from the sides of the borehole that resulted from drilling procedures.
- Stabilize the fine materials remaining in the vicinity of the well to retard their movement into the well, increasing well yield.
- Provide an estimate of the well yield.

Monitoring well development was accomplished by over pumping the well using an appropriately sized pump. The pump was field-decontaminated, and new dedicated polyethylene tubing was used for each individual discharge line. To ensure that fine materials were removed during development, the pump intake was raised and lowered across the entire length of the well screen. Additionally, the pump was turned off and on and pumped at different rates during development to cause a surge effect to remove additional fine materials.

During development, field measurements of temperature, pH, specific conductivity, turbidity, and at some locations, salinity were obtained at the beginning of development, during development and upon completion of development. Observations related to groundwater appearance were recorded.

The development procedures for the monitoring wells continued until the following goals were met or exceeded:

- Discharge became clear.
- Flow rate stabilized.
- At least five volumes of water were removed and the well pumped for a minimum of 4 hours.
- Turbidity readings were less than 50 NTUs as determined by a nephelometer.

### 2.2.3 Water Sampling Procedure Summary

Groundwater sampling occurred on 21 September 1999 (at least 2 weeks after development of the last well installed on-site). During the groundwater sampling program, all monitoring wells were purged and sampled using low-flow protocol, a field-decontaminated pump equipped with

new, dedicated polyethylene, teflon-lined discharge tubing. During purging, wells were pumped at a low rate (lower than the recharge rate) so that the drawdown was kept to the lowest possible amount. Water level measurements were taken to ensure that the water column was not purged to dryness.

While monitoring wells were purged, water quality parameters including temperature, pH, and specific conductivity stabilized (less then 10% variation), and turbidity levels were less than 50 NTUs. Purge rates for wells did not exceed the purge rates at which the monitoring wells were developed. During well purging, groundwater was monitored for the presence of Volatile Organic Compounds (VOCs). Additional groundwater quality parameters including Eh (millivolts), salinity, and dissolved oxygen were obtained to provide additional water quality data. The groundwater sampling procedure employed during the sampling event is provided below.

- 1. Measure static water level in monitoring well using an electronic water level device to minimize disturbance to the water column.
- 2. Check for free product or sheen floating on water surface in the well.
- 3. Position low-flow pump in the water column with the intake placed at a point between the middle and top of the screened interval.
- 4. Purge the well using a low flow rate (<0.5 l/min) until indicator parameters (i.e., pH, conductivity, oxygen, etc.) have stabilized (Note: Goal during purging is to limit drawdown to < 0.1 m).
- 5. Collect groundwater samples using same flow rates as established during purging.
- 6. Fill sample bottles directly from the pump discharge avoiding excessive agitation of sample. Fill VOA sample vials first, then remaining sample bottles.
- Pumps used for groundwater sampling will be decontaminated prior to use according to the
  procedures described herein. One sample shall be collected from each monitoring well. All
  samples are to be separate grab samples.

Each water sample was analyzed for TPHC, PP+40, VOCs + 15, total dissolved solids and total chlorides. Temperature, pH, and specific conductivity were measured in the field. Groundwater COCs and labeling procedures are detailed in Section 2.3.3.

### 2.3 QUALITY ASSURANCE AND QUALITY CONTROL

In order to generate analytical data of known and defensible standards, quality assurance (QA) and quality control (QC) protocols for sampling and laboratory analysis complied with requirements specified in N.J.A.C. 7:26E-2.1. This was conducted to ensure that samples obtained in the field were representative of the particular environment from which they were collected and were of satisfactory quality to meet the project objectives.

### 2.3.1 QA/QC Samples

### 2.3.1.1 Field Blanks

A field blank composite sample was taken during the groundwater sampling portion of the investigation. A field blank was conducted using two identical sets of cleaned sample containers. One set of containers was empty and served as the sample containers to be analyzed. The second set of containers was filled with laboratory-demonstrated analyte-free water. At the field location, the analyte-free water was poured over the clean sample equipment (pump) and placed in the empty sample containers for analysis. The field blank was handled, transported, and analyzed in the same manner as samples acquired that day. The field blank was performed at the rate of one per sampling day per type of sampling equipment, and packaged with its associated matrix. The field blank for groundwater was analyzed for all of the same parameters as the samples collected that day.

### 2.3.1.2 Trip Blanks

Trip blanks are required only for aqueous sampling events for volatile organics and for soil samples collected with the methanol preservation method. Sample bottles for aqueous trip blanks were filled at the laboratory with laboratory-demonstrated analyte-free water. Sample bottles for trip blanks associated with the volatile soil samples collected using the methanol preservation method were filled and weighed at the laboratory with pesticide-grade methanol. The trip blanks traveled with the sample bottles and are not opened in the field. They are handled, transported, and analyzed along with the other samples. For aqueous samples, one trip blank must be provided per shipment or 2-day sampling event. For soil samples collected using the methanol preservation method, one trip blank must accompany each sample shipment.

### 2.3.2 EQUIPMENT DECONTAMINATION

### 2.3.2.1 Sampling Equipment Decontamination

All soil and groundwater sampling equipment, except heavy machinery and submersible pumps, were decontaminated using these procedures.

Soil sampling equipment was decontaminated according to the following procedure:

- 1. Non-phosphate detergent plus tap water wash.
- 2. Tap water rinse.
- 3. Distilled/deionized water rinse.

Groundwater sampling equipment was decontaminated and packaged in the laboratory, and dedicated for exclusive use at one sample location only. The laboratory utilized the following decontamination procedure:

- 1. Non-phosphate detergent plus tap water wash.
- 2. Tap water rinse.
- 3. Distilled/deionized water rinse.
- 4. 10% nitric acid solution rinse.
- 5. Distilled/deionized water rinse.
- 6. Methanol (pesticide-grade) rinse.\*
- 7. Total air dry.
- 8. Distilled/deionized water rinse.

All decontaminated sampling equipment shall be stored and handled as appropriate to prevent contamination. Information concerning the decontamination methodology, date, time, and personnel was recorded in the field logbook.

### 2.3.2.2 Heavy Machinery Decontamination

Prior to use on-site, heavy equipment was steam cleaned or manually washed. Parts that were prone to contact with contaminated materials required more frequent cleaning to prevent cross-contamination of environmental samples. For example, augers and split-spoon sampling devices were steam cleaned between sampling locations.

### 2.3.2.3 Pump Decontamination

The pump used for evacuation of water from monitoring wells prior to sample collection was decontaminated to eliminate the possibility of contamination introduced by pump insertion.

The pump was cleaned and flushed between use at each monitoring well. The outside of the pump was manually washed using non-phosphate detergent and water, followed by a potable (tap) water rinse. The pump was then flushed with 20 gallons of potable water pumped through the housing and hose. After completion of the flushing, the exterior housing was rinsed with distilled and deionized water. Rinsate from the pump decontamination was collected in drums for disposal. After each use, the hose was cut up into manageable-sized pieces and disposed of with other investigation-derived wastes.

<sup>\*</sup> Methanol was used in place of acetone since acetone is a target analyte.

### 2.3.2.4 Monitor Well Casing and Screen Decontamination

Before installation, well casings and screens were manually scrubbed in the field to remove foreign material. Casings and screens were also thoroughly steam cleaned to remove all traces of oil and grease which may have been present, especially at threaded joints. Casings were carefully handled and stored to prevent cross-contamination prior to installation.

### 2.3.3 SAMPLE DOCUMENTATION

During sampling, all activities were recorded in a logbook to provide an accurate record of the sampling event and the procedures followed. Entries made by sampling personnel in the logbook included:

- Date/Time/Weather
- Sampler/Geologist/Soil Scientists' Names
- Sample Point Identification (including location, matrix, and sample depth)
- Sketch Showing the Sampling Point Location (including reference distances)
- Soil Profile
- Sample Size
- Sampling Equipment Used
- Field Measures (where appropriate)
- General Comments (e.g., odor, staining, etc.)

The field crew also labeled each sample container with the appropriate information necessary to identify the sample as listed below:

- Unique Sample Identification Number
- Date
- Time of Sampling
- Name
- Preservation
- Analyses
- Sampler's Initials

This information was then supplemented and cross referenced on a Chain-of-Custody form, providing documentation of the handling of each sample from collection to arrival at the laboratory.

A Chain-of-Custody form containing the information listed below was completed by the field crew and signed by the sampler and all personnel handling the samples before the samples were relinquished to the laboratory. The Chain-of-Custody form should contained the following information:

- Project Name
- Date

- Sampler's Initials
- Sample Identification Number
- Name/Description of Sample (Analytical Parameters)
- Preservation
- Number of Containers
- Holding Conditions and Locations
- Signature of all Handlers and Date and Time of Transfers
- Organization or Affiliation of all Handlers and Reason for Transfer

All samples were preserved at the time of collection and packaged in coolers of sufficient size to hold all containers, ice, and packing material to prevent breakage. Coolers were of suitable type and integrity to transport the samples.

At the laboratory, receipt of samples was recorded on the Chain-of-Custody form by laboratory personnel. The original or a copy of the form was returned to the shipper. The Chain-of-Custody record was checked by laboratory personnel against the information regarding the analysis requested. If any discrepancies were discovered, they were resolved with the person requesting the analysis and recorded to provide a permanent record of the event. A record of the information detailing the handling of a particular sample through each stage of analysis was provided by completing a laboratory chronicle form. This form typically provides the following information:

- Job Reference
- Sample Matrix
- Sample Number
- Date Sampled
- Date and Time Received by Laboratory
- Holding Conditions
- Analytical Parameter
- Extraction Date/Time and Extractor's Initials
- Analysis Date/Time and Analyst's Initials
- QA Batch Number, Date Reviewed, and Reviewer's Initials

### 2.3.4 LABORATORY ANALYTICAL QUALITY ASSURANCE PROCEDURES

Analyses of samples were performed in accordance with NJDEP and U.S. Environmental Protection Agency (USEPA) Methodologies.

The contract laboratory provided sample containers for the requested analyses appropriate for analysis of each matrix. The sample containers were of sufficient size to permit replicate analyses to be run from the sample matrix. All unused portions of samples were archived by the laboratory until written notification from the Port Authority regarding their disposition is received. The contract laboratory will also retain samples and sample extracts in a sample archive for future analyses if requested by Port Authority representatives.

Calibration and periodic inspection of laboratory instruments was in accordance with USEPA and/or the manufacturer's specifications. Reference standards and QC samples (spikes, blanks, and duplicates) were used as necessary to determine the accuracy and precision of procedures, instruments, and operators. If QC sample analysis results indicate QC values outside the control limit range, sample analysis was suspended until the instrument was recalibrated. In general, the following quality control requirements apply to all samples:

- Analysis of an appropriate blank with every set.
- Analysis of at least one standard at midrange concentration (preferably an additional standard near the detection level).
- Annual analysis of external reference samples.
- Annual analysis of split or double blind samples.
- Determination of a detection limit for each method and parameter.
- Laboratories must keep records of the following information:
  - Date, title, analytical method name, and reference
  - Time of analysis
  - Details of methods not specified in referenced procedures, sample numbers
  - All raw data (measurements)
  - Calculations
  - Results
  - Equipment used, and instrumental parameters
  - Analyst signature or initials.
- QC data was reported with the analytical results.

The laboratory provided as a final report reduced-data deliverables as per N.J.A.C 7:26E, Appendix A, Sections III and IV.

### 2.4 WASTE MANAGEMENT

Types of waste material generated during the site investigation included soil drilling cuttings, monitoring well development groundwater, decontamination rinsates, expendable materials, and personal protective equipment (e.g., gloves, towels, etc.).

Soil cuttings from borings and holes converted to monitoring wells were inspected for contamination by field observation (visual and odor) and instruments (HNu meter). When the material was not contaminated based on field observations, the facility environmental coordinator located an area at the work site to reuse the material as backfill. The material may have been used on-site in areas outside the work area, providing the area had similar subsurface characteristics or results of the soil analysis are below the residential cleanup criteria. This determination was the responsibility of the facility environmental coordinator. Material that could not be reused on-site

was properly disposed off-site utilizing the Port Facility Call-in Disposal Contractor.

Prior to pumping water from a monitoring well, a sample was obtained using a clear bottom teflon bailer. The water sample was inspected for contamination by observation (visual and odor), HNu measurements, and field tests (pH). If the water was not contaminated based on the field inspection, the water was reapplied to the ground surface in a manner not to allow water to run off-site or over stained areas.

### **SECTION 3.0**

### **SURVEYING**

The final latitude, longitude and elevation to the nearest 0.01 ft of all installed borings and wells were recorded in North American Datum (NAD) 27 format. Elevation was measured from the top of the well casing. This information is presented in Appendix B.

### **SECTION 4.0**

### RESULTS

### 4.1 SOIL SAMPLING RESULTS

The analytical results of the 10 soil samples and associated trip blanks collected by Port Authority personnel are contained in Tables 1-6.

- Table I summarizes the results of the VOCs analyses performed on the soil samples.
- Table 2 summarizes the results of the Base Neutral and Acid Extractables (BNA) analyses performed on the soil samples.
- Table 3 summarizes the results of the polychlorinated biphenols (PCB) analyses performed on the soil samples.
- Table 4 summarizes the results of the pesticide analyses performed on the soil samples.
- Table 5 summarizes the results of the inorganic analyses performed on the soil samples.
- Table 6 summarizes the results of the total petroleum hydrocarbons (TPHC) analyses performed on the soil samples.

### 4.2 GROUNDWATER SAMPLING RESULTS

The analytical results of the groundwater samples and associated trip blanks collected by the Port Authority personnel from the 2 on-site monitoring wells are summarized in Tables 7 - 12.

- Table 7 summarizes the VOC analysis results for the groundwater samples.
- Table 8 summarizes the results of the BNA analyses for the groundwater samples.
- Table 9 summarizes the pesticides and PCB analyses results for the groundwater samples.
- Table 10 summarizes the priority pollutant metals analysis for the groundwater samples.
- Table 11 summarizes the chloride, phenol, and cyanide results for the groundwater samples.
- Table 12 summarizes the TPHC analysis for the groundwater samples.

APPENDIX A
FIELD SCREENING NOTES/SOIL BORING LOGS/WELL CONSTRUCTION
FORMS

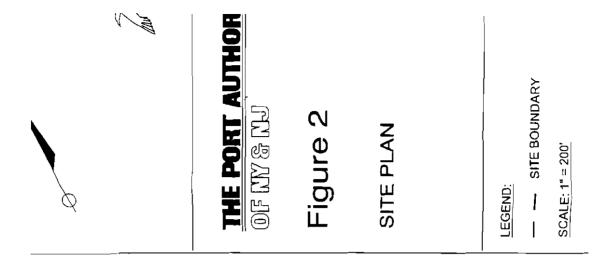
# THE PORT AUTH

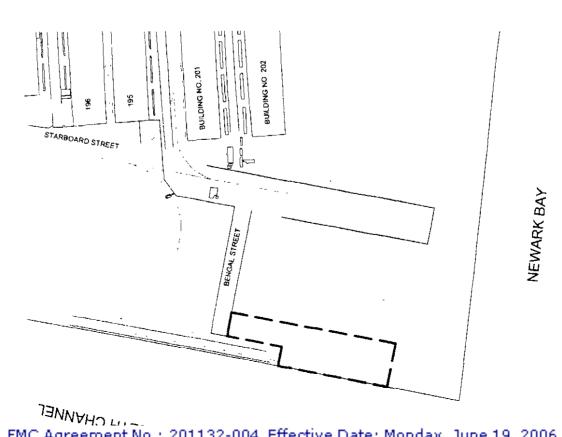
## Figure 1

# SITE LOCATION N

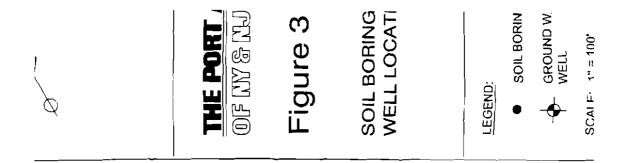
Source Map: Port Authority of I and New Jersey I Facilities

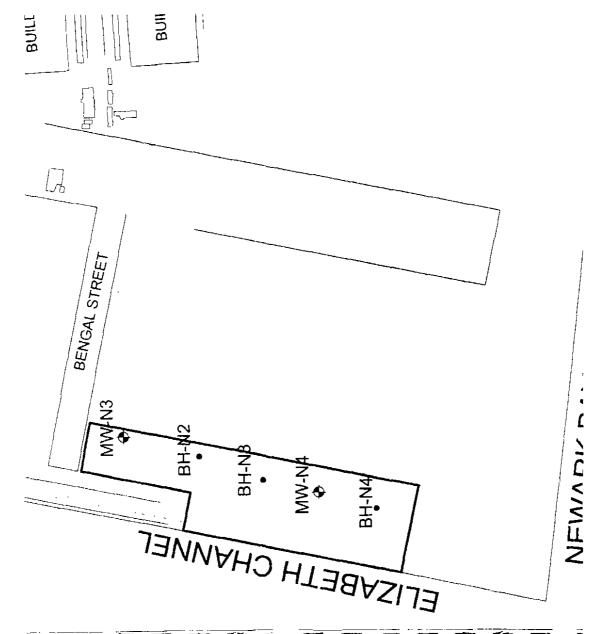
SITE LOCATION FMC Agreement No.: 201132-004 Effective Date: Monday, June 19, 2006
Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018



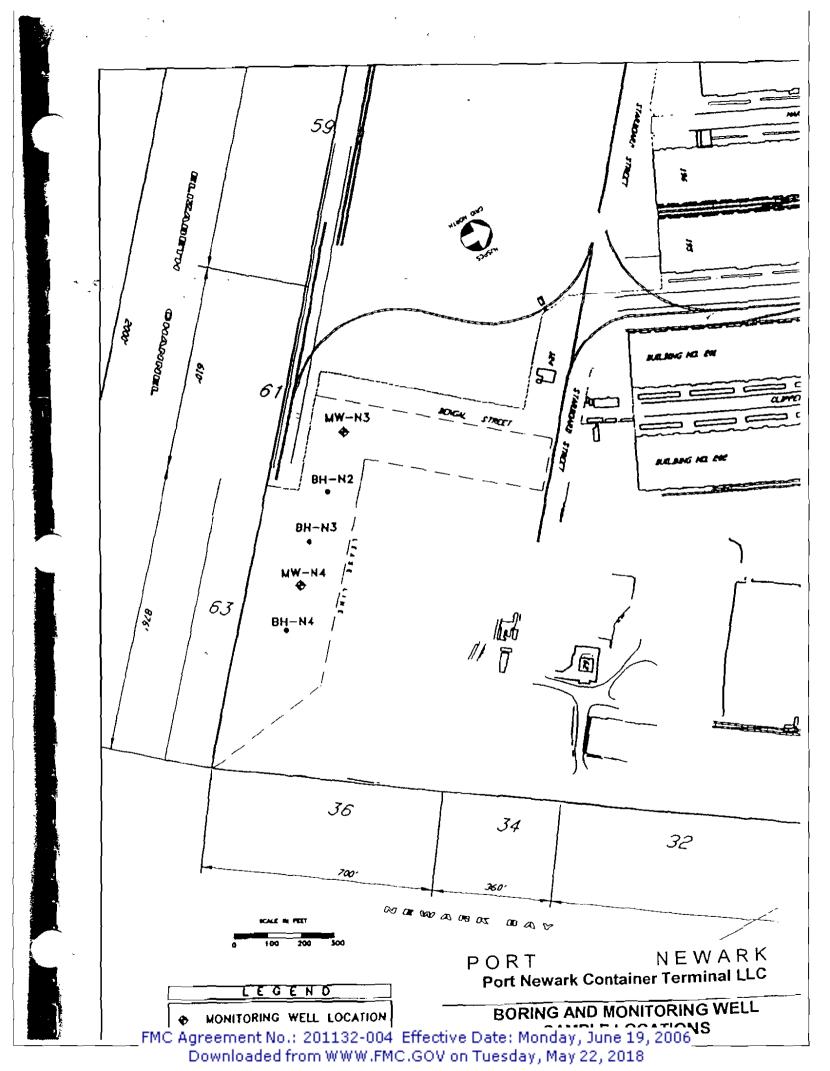


FMC Agreement No.: 201132-004 Effective Date: Monday, June 19, 2006
Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018





APPENDIX B SURVEY DATA



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क्ष्मान्यवित् स्टाइका (स्	1 313	न कड्डा र (१) (द्यु) त	6.50	7.500		0.6 (A	1000	الم وباروط	W. (E. U.)	0.545
Yaiki មានប្រជាជា	5: Not 1954 /		2.89(3.6) -	AND 125	130,000	CEMPAGE	Section .	1811	TO THE	50.52.035
Standard Co.	Tesse		75.35 A	CHICE	28/V/21	D75-197	100	20-2019	EC (1123)	26/150
<u> Milita</u>	<u>.13.5 18/680</u> , 3	ie <u>a na balebb</u> ara, <u>a</u>	2000	( [e : [e :	100	LERGE !		<u>. : (6.60</u>	ालिल है	<u> </u>
1,1,1-Trichloroethane	0.59 U	0.65 U	0.62 U	0.68 U	0.63 U	0.57 U	0.64 U	0.58 ()	0.56 Ü	0.68 U I
1,1,2,2-Tetrachloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 Ú	0.68 U
1,1,2-Trichloroethane	0.59 U	0.65 U	0.62 U	0.86 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
1,1-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 ป	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.58 U
,1-Dichloroethene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
1,2-Dichlorobenzene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
2-Dichloroethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
1,2-Dichloropropune	0.59 U	0.65 U	0.62 U	8.66 U	0.63 U	0.57 ∪	0.64 U	0.56 U	0.56 U	0.68 U
1,3-Dichlorobenzene	0.59 ป	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
1,4-Dichlarabenzene	0.59 U	0.65 U	0.62 じ	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
2-Butanone	3 ป	3.3 U	3.1 U	3.3 U	3.1 U	2.9 U	3.2 U	2.6 U	2.6 U	3.4 U
2-Chloroethylvinylether	0.59 U	0,65 U	0.62 U	0.66 U	0.63 U	0.57 ป	0.64 U	0.56 U	0.56 U	0.66 U
2-Hexanone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.5 U	2.2 U	2.2 U	2.7 U
4-Methyl-2-Pentanone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.6 U	2.2 U	2.2 U	2.7 ∪
Acetone	2.4 U	2.6 U	2.5 U	2.6 U	2.5 U	2.3 U	2.6 U	2.2 Ú	2.2 U	2.7 U
Acrolein	1.8 0	2 (1	190	2 U \	1.9 U	170	1.9 U	1.7 U	1.7 U	2.1 U
Acrylonitrile	1.2 U	1.3 U	12 U	1.3 U	1.2 U	1.1 U	1.3 U	1.1 U	1.1 U	1.4 U
Benzene	0.12 U	0.13 U	0.12 U	0.13 U	0 13 U	0.11 U	0 13 U	0.11 U	0 11 U	0.14 U
Bromodichloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Bromolorm	( 0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 ป	0.68 U
Bromomethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 ป	0.68 U
Carbon Disuffide	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 ∪
Carbon Tetrachioride	0.59 U	0.65 U	0.62 ປັ	0.65 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Chlorobenzene	0.59 U	0.65 U	0.62 U	D.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Chloroethane	0.59 U	0.65 U	0.62 U	0 66 U	0.63 U	0.57 U	0.54 U	0.56 ป	0.56 U	0.68 U
Chloroform	0.59 ป	0.65 U	0.62 U	0.66 ∪	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Chloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
cis-1,2-Dichloroethene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 ∪	0.68 U
cis-1,3-Dichloropropene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 Ú
di-Isopropyi-ether	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Dibromochloromethane	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Elhylbenzene	0.12 U	0.13 ()	0.12 U	0.13 U	0.13 U	0.11 U	0,13 U	0,11 U	0 11 U	0.14 U
M&P-Xylenes	0.24 U	0.26 U	0.22 J	0.26 U	0.25 U	0.23 U	0.26 U	0.11 J	0.22 ป	03
Methyl-t-butyl ether	0.12 U	0.13 U	0.12 U	0.13 U	0 13 U	0.11 U	0 13 U	0110	0.11 U	0.14 U
Methylene Chloride	0.59 U	0.65 U	0.62 U	0.66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
O-Xylene	0.12 U	0.13 U	0 12 U	0 13 U	0.13 U	0.11 U	0 13 U	0.11 U	0110	0.14 U
Styrene	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U	0.11 <u>U</u>	0 13 U	0.11 U	0.11 U	0 17
I-Butyl Alcohol	1.2 U	1.3 Ú	1.2 U	1.3 U	1,2 U	1.1 ປັ	1.3 U	110	1.1 U	140
Tetrachloroethere	0.59 U	0.65 U	0.62 U	0 66 U	0.63 U	0.57 U	0.64 U	0.56 U	0.56 U	0.68 U
Toluene	0.12 U	0.13 U	0 12 U	0.13 ป	0 13 U	0.11 U	0.13 U	0.11 U	0110	0.2
trans-1,2-Dichloroethene	-0:59·U	-· - 0.65 U	0.62 U	U 88 0	0 63 U	0.57 U	0.64 U	<b>0.56</b> υ	0.56 U	0.68 U
rans 1,3-Dichloropropene	0.59 U	0.65 U	0.62 U	0.66 U	0 63 U	0.57 U	0.64 U	0.58 U	0.56 U	U 88.0
Trichlomethene	0.59 U	0.65 U	0.62 U	0.66 U	0.63 ป	0.57 U	0.64 U	0.56 U	0.56 ∪	0.68 U
Trichlorofluoromethane	0.59 ป	0.65 U	0.62 U	0.66 ∪	0.63 U	0. <u>57</u> U	0.64 U	0.56 U	0.56 U	0.68 U
Vinyl Acetate	1.2 U	1.3 U	1 2 U	1.3 U	1.2 U	1.1 0	13 U	1.1 U	110	1.4 U
Vinyl Chloride	0.59 U	0.65 U	0 62 U	0.66 ∪	0.63 U	0.57 ป	0.64 U	0.56 U	0.56 U	0.68 U

### Notes

NUDEP - New Jersey Department of Environmental Protection mg/Kg - Miligrams per Kilograms, equivalent to parts per million

U . Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

### Survey Data Boring and Monitoring Well Location and Elevations Port Newark Container Terminal LLC Port Newark Newark, New Jersey

ITEM	NORTH	EAST	ELEVATION	DESCRIPTION
BH-N2	673750.9	2144151.20	306.70	
MW-N3	673869.67	2144092.78	306.39 306.09 306.40	RIM P.V.C. G.L.
BH-N3	67366 <u>1.88</u>	<u>2</u> 144271.70	307.70	
MW-N4	673576.87	2144372.58	307.75 307.55 307.60	RIM P.V.C. G.L.
BH-N4	673488.6	2144480.50	307.00	

### Table 2 Summary of Semivolatile Organic Compounds Soil Sampling Results Port Newark Container Terminal LLC **Port Newark** Newark, New Jersey

elimies d'Élyupers de l'arrige	STATE OF THE STATE	To suppose from		WELVER WEST	- विकास सम्बद्धाः		AND EXCES	- Salatana		
Confidence (in the confidence of the confidence	1000 E	1000	eeleg () Owners Outcom		7 C3 B1 3	(V)26.52	1171.51		7.37	
						Orail () . Heise	Para Alleria			
1,2,4-Trichlorobenzene	0.17 U	0.18 0	0.54 U	0.18 U	0170 1	0170 )	0.35 U T			
1,2-Dichlorobenzene	0.17 U	0180	0.54 U	0.18 U	0.17 U	- 0.17 U	0.35 U	0.17 U 0.17 U	0.91 U 0.91 U	0.17 U
1,3-Dichloroberizene	0.17 U	0.18 U	0.54 U	0.16 U	0 17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
1,4-Dichlorobenzene	0 17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
2,4,5-Trichlorophenol	0.17 U	0.18 U	0.54 U 0.54 U	0.18 U 0.18 U	0.17 U 0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
2.4-Dichlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0 17 U	0.91 U	0.17 U
2,4-Dimethylphenol	0.17 U	0.18 Ú	0.54 U	018 U	0.17 U	0.17 U	0.35 U	0.17 0	0910	0.17 U
2,4-Dinitrophenol	0.35 U	0.35 U	1.1 0	0.35 U	0.34 U	0.35 U	0.69 U	034 U	1.8 U	0.35 U
2,4-Dinitrotoluene 2,6-Dinitrotoluene	0.17 U 0.17 U	0.18 U 0.18 U	0.54 U 0.54 U	0.18 U 0.18 U	0.17 U 0.17 U	0.17 U 0.17 U	0.35 U 0.35 U	0.17 U	0.91 U	0.17 U
2-Chloronaphthalene	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 ()	0.35 U	0.17 U T	0.91 U	0.17 U
2-Chlorophenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
2-Marthylnaphthalene	0.17 U	0.18 U	2.2	0.16 U	0.17 U	0.17 U	1.3	0.17 U	0.23 J	0.17 U
2-Methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
2-Nitroaniine 2-Nitrophenoi	0.17 U 0.17 U	0.18 U	0.54 U 0.54 U	0.18 U 0.18 U	0.17 U 0.17 U	0.17 U 0.17 U	0.35 U	0.17 U 0.17 U	0.91 U 0.91 U	0.17 U 0.17 U
3&4-Methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
3,3'-Dichlorobenzidine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
3-Nitroaniline	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
4,6-Dinitro-2-methylphenol 4-Bromophenyl-phenylether	0.17 U 0.17 U	0.18 U 0.18 U	0.54 U 0.54 U	0.16 U 0.18 U	0.17 U 0.17 U	0.17 U 0.17 U	0.35 U	0.17 U 0.17 U	0.91 U	0 17 U 0.17 U
4-Chloro-3-methylphenol	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U 0.10	0.17 U
4-Chloroaniline	0.17 Ú	0.18 Ú	0.54 U	0,18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
4-Chlorophenyl-phenylether	0 17 U	0.18 U	0.54 U	0 18 U	0.17 U	0 17 U	0.35 U	0.17 U	0.91 U	0.17 U
4-Nitroaniline	0170	0.18 U	0.54 U	0.18 U	0 17 U	0.17 U 0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
4-Nitrophenol Acenaphthene	0170	0.18 U	0.54 U 0.58	0.18 U	0.17 U	0.17 U	0.35 U 0.34 J	0 17 U	0 91 U 1.1	0.17 U
Acenaphthylene	0 17 U	0 18 U	0.15 J	0.18 U	0 17 U	0.17 U	0.1 J	0.17 U	0 91 U	0 17 0
Anthracene	0.17 U	0.18 U	1 1	0180	0 17 Li	0.17 U	0.48	0.17 U	1.9	0.17 U
Benzidine	0.35 U	0.35 U	1.1 U	0.35 U	0.34 U	0.35 U	0.69 U	0.34 U	1.8 U	0.35 U
Benzolalanthracene	0.17 U 0.17 U	0.18 U 0.18 U	2.5	0.18 U	0.17 U 0.17 U	0.17 U 0.17 U	1.6	0.036 J 0.045 J	3.6 2.9	0.17 U 0.17 U
Benzo(a)pyrene Benzo(b)Fluoranthene	0.036 J	0.18 U	3.5	0.18 U	0.17 U	0.17 U	2.4	0.052 J	4.6	0.17 U
Benzo(g,h,l)perylene	0 17 U	0.18 U	0.92	0.18 U	0 17 U	0.17 U	0.54	0.17 U	0.77 J	0.17 U
Benzo k Fluoranthene	0 17 U	0.18 U	1.8	0.18 Ü	0.17 U	0.17 U	1.1	0.17 U	1.7	0.17 U
Benzoic Acid Benzyl Alcohol	0.35 U 0 17 U	0.35 U 0.18 U	1.1 U 0.54 U	0.35 U 0 18 U	0.34 U	0.35 U 0.17 U	0.69 U 0.35 U	0.34 U 0.17 U	1.8 U 0.91 U	0.35 U 0.17 U
Bis(2-Chioroethoxy)Methane	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 0	0.91 U	0.17 U
Bis 2-Chloroethyl)ether	0.17 U	0.18 U	0.54 U	0.18 U	0 17 U	0.17 U	0.35 U	0.17 U	Q.91 U	0.17 U
Bis(2-Chloroisopropyl)ether	0 17 Ú	0.18 U	0.54 U	0 16 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
Bis(2-Ethylnexyl)phthalate Bulybenzylphthalate	0.39 0.17 U	0.093 J	8.8	0.18 U	0.27 0.17 U	0 11 J 0 17 U	3.8 0.35 U	0.17 J 0.17 U	10	0.21 0.17 U
Carbazole	0.17 U	0.18 Ú 0.18 Ú	0.54 U 0.42 J	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U
Chrysene	0.17 0	0.18 U	2.9	0.18 U	0 17 U	0.17 U	1.7	0.037 J	3.9	0 17 U
Di-n-butylphthalate	0.043 J	0.042 J	0.8	0.18 U	0.17 U	0.17 U	0.16 J	0.044 J	0.28 J	0.17 U
Oi-n-octylohthalale	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U 0.17 U	0.17 U 0.17 U	0.35 U	0.043 J 0.17 U	0.91 U 0.23 J	0.17 U 0.17 U,
Dibenzo(a,h)anthracene Dibenzofuran	0.17 U 0.17 U	0.18 U 0.18 U	0.54 U 0.33 J	0.18 U	0.17 U	0.17 U	0.35 U	0.17 0	0.36 J	0.17 U
Diethylohthalate	0.17 U	0.18 U	0.54 U	0.18 U	0 17 U	0.17 U	0.081 J	0.17 U	0.91 U	0.17 U
Dimethylphthalate	0.17 U	0.18 U	0.54 U	0.18 U	0 17 U	0 17 U	0.35 U	0.17 U	0.91 U	017 U
Fluoranthene	0016 J	0.18 U	57	0 18 U	0 17 U	0.17 U	3.4	0.071 J	95	0.056 J 0.17 U
Fluorene Hexachlorobenzene	0.17 U 0.17 U	0.18 U 0.18 U	0.75 0.54 U	0.18 U	0 17 U 0.17 U	0.17 U 0 17 U	0.53 0.35 U	0 17 U 0.17 U	1.2 0.91 U	0.17 U
Hexachlorobutaciene	0 17 U	0.18 U	0.54 U	0 18 U	0.17 U	0 17 U	0 35 U	0.17 U	0.91 U	0.17 U
Hexachlorocyclopentaciene	0.52 U	0.53 U	1.6 U	0.53 U	0.52 U	0 52 U	1 U	0.52 U	2 7 U	0.52 U
Hexachloroethane	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0 17 U	0.35 U 0.53	0.17 U	0.91 U 0.79 J	0.17 U
Indeno[1,2,3-cd]pyrene	0 17 U 0 17 U	0.18 U	0.54 U	0 18 U	0 17 U	017 U	0.35 U	0.17 U 0.17 U	0.79 J 0.91 U	0.17 U
N-Nitroso-Di-N-Propylamine	0 17 U	0.18 U	0.54 U	0 18 U	0.17 U	0 17 U	0.35 U	0.17 U	0.91 U	0.17 U
N-Nitrosodimethylamine	0 17 U	0.18 U	0.54 U	0.18 U	0 17 U	0 17 U	0.35 U	0.17 U	0.91 U	017 U
N-Nitrosodiphenylamine	0.17 U	0.18 U	0.54 U	0.18 U	0.17 U	0 17 U	0.35 U	0.17 U	0.91 U	0 17 U 0.17 U
	0.17 V	0.18 U	1.5			0.17 U	1.1 0.35 U	0.17 U 0.17 U	0.41 J 0.91 U	0.17 U
Naphthalene Nitmhenzene	0 17 L1	0.18 U	L 0541)	( 0.18 U	( () 17 U	1 0170				
Naphthalene Nikrobenzene Pentachlorophenol	0 17 U 0 17 U	0.18 U 0.18 U	0.54 U 0.54 U	0.18 U	0.17 U	0.17 U	0.35 U	0.17 U	091 0	0.17 U
Nitrobenzens	0.17 U 0.17 U	0.18 U 0.18 U		0.18 U	0.17 U 0.17 U	0 17 U 0 17 U	0.35 U 2	0.17 U 0.063 J	0.91 U 5.3	0.17 U 0.17 U
Nitrobenzens Pentachlorophenol	0.17 Ü	0.18 U	0.54 U	0 18 U	0.17 U	0.17 U	0.35 U	0.17 U	0.91 U	0.17 U 0.17 U 0.17 U 0.062 J

Notes

NJOEP - New Jersey Department of Environmental Protection mg/Kg - Miligrams per Kilograms, equivalent to parts per million U - Not detected at the PQt.

Analyte detected below PQL and/or estimated concentration

## Table 3 Summary of PCB Soil Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Client Sample ID Sampling Depth (ft) Verified's Sample ID Sampling Date	869-45 8.5-1 8 4.694-56 9/3/1990	AVV. N2 7 G-7 L AAGAGEA B731 900	AAN-NA 0.5-1.5 AASABBD 973/1999	7.0-7.8	BH-N2 (LS-1-5 (AB415) (UZ5/1999)	#1-12 7.1.7.6 A494152 87257989	0.8-1.6 AA94163	7.6-8.0	8H-NA 0.6-1.5 AA04155 A/25/1990	5H-N 7.5-6 AA94 8/25/1
Units:	MGAGG	MGAKG	MG/KG	MG/KG	MG/KG	MGKG	MG/KG	MGKG	MG/KG	MGA
Aroclor-1016	0.12	0.024	3,4	0.018 U	0.017 U	0.017 U	0.017 U	0.017 Ū	0.18 U	0.01
Aroclor-1221	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1232	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1242	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 U	0.01
Aroclor-1248	0.017 U	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	1.1	0.046	6.9	0.01
Aroclor-1254	0.051	0.018 U	3.4	0.018 U	0.017 U	0.017 U	0.76	0.017 U	7.6	0.01
Aroclor-1260	0.017 ปั	0.018 U	0.18 U	0.018 U	0.017 U	0.017 U	0.017 U	0.017 U	0.18 Ü	0.01

Notes:

NJDEP - New Jersey Department of Environmental Protection mg/Kg - Miligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

## Table 4 Summary of Pesticides Soil Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Client Sample ID	I SEE MANAGES	00/8350	***************************************	Mayaya	ERENZ	SE S	\$00000 TE \$75 Processor		**************************************	0010000: N 2101
Sampling Depth (ft)	06:18	7.0-7.5	0-0.5	7075	05-15	7078	03-15	EH4-N3	BHAM	<b>B</b> 44:
Vertech Sample ID:	AA94658	AA94659	AAG4660	AA94881	AA94151	AA94152	AAB4151	7.6-8.0 AAM154	0.5-1.5 AA04155	7.5 AAG4
Sempling Date:	073/1999	9/3/1 BB3	9/3/1999	9/3/1999	8/25/1900	8/25/1900	N/25/1999	07571900	6/25/1909	<b>8</b> 2257
Units:	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MG/KG	MGKG	MG/KG	MC
	***************************************	C-1444-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		***************************************			***************************************	\$0.000m3m4.2ma800000	2000 Co. (Co.) (Co	SCOOL PROPERTY
Aldrin	0.0067	0.0035 U	0.17	0.0035 U	0.0034 U	0.0035 U	0.061	0.0034 U	0.036 U	0.00
Alpha-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.000
Beta-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.1	0.00.
Chlordane	0.0069 U	0.007 U	0.072 U	0.0071 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.072 U	0.000
Delta-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 ป	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00:
Dieldrin	0.0035 U	0.0035 U	0.12	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endosulfan I	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.02	0.0034 U	0.036 U	0.00.
Endosulfan II	0.0035 U	0.0035 U	0.069	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.18	0.00
Endosulfan Sulfate	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00:
Endrin	0.0035 U	0.0035 U	0.2	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00:
Endrin Aldehyde	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Endrin Ketone	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00.
Gamma-BHC	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0085	0.0034 U	0.049	0.00
Heptachlor	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.033	0.0034 U	0.16	0.00.
Heptachlor Epoxide	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
Methoxychlor	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.036 U	0.00
P,P'-DOD	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0035 U	0.0034 U	0.053	0.00.
P,P'-DDE	0.0035 U	0.0035 U	0.036 U	0.0035 U	0,0034 U	0.0035 U	0.012	0.0034 U	0.17	0 00.
P,P-DOT	0.0035 U	0.0035 U	0.036 U	0.0035 U	0.0034 U	0.0035 U	0.0079	0.0034 U	0.14	0.00
Toxaphene	0,035 U	0.035 U	0.36 U	0.035 U	0.034 U	0.035 U	0.035 U	0.034 U	0.36 U	0.0

<sup>-</sup> New Jersey Department of Environmental Protection

nissing - Miligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

## Summary of inorganic Compound Soil Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

A SALESTINE PROPERTY.		717838F	THE RESERVE AND A SECOND PROPERTY.	LY ESC	BHAIR	01230		∞ BittaN2	BI444	BH-N4
amoliio Dech (fi)	015-05 2-4945-8	457.0		7.5-8.0 A49450	05-1.5 AA94151	7.0-7.5 - g494162	8.5-1.5 AAD4150	7.5-8.0	0.5-1.5	7.5-8.0 AA94156
(artisch Sarrote II) Jarrotho Date	W3/1993		2/100	9/4 1909	872/1690	erenera.	8/25/1999	AA84154 8/25/1999	AA94155 8/25/1999	8/25/1999
interes	MG/KG		2000	Movica	MO/KO	MOKO	MC/KG	MOKG	MOVE	MOVKG
Antimony	1.4 0	1.4 U	5.2	1,4 U	1.3 U	1,4 U	1.4 U	1.3 U	8.3	1.4 U
Arsenic	2 U	2 U	3	2 U	2 U	2 U	2 U	2 U	2.4	2 U
Barium	8.7	7	89	10	8.2	7.7	79	13	240	11
Beryllium	0.19 Ú	0.19 U	0.2 U	0.19 U	0.19 Ú	0.19 U	0.19 U	0.19 U	0.2 U	0.19 U
Cadmium	0,31 U	0.32 V	3.2	0.32 U	0.31 U	0.31 U	2.6	0.31 U	5.8	0.31 U
Chromium	19	18	66	6.9	18	12	60	39	120	12
Copper	11	7.3	1000	7.5	8	5.7	230	7.8	350	14
Lead	12	7.5	600	5.1	6.4	5,6	290	8.5	810	17
Mercury	0.034 U	0.034 U	1.2	0.034 じ	0.033 U	0.034 U	1.1	0.033 ป	4.5	2.2
Nickel	28	18	58	15	20	14	220	22	170	33
Selenium	2.8 U	2.8 U	2.9 U	2.9 U	2.8 U	2.8 ∪	2.8 U	2.8 Ų	2.8 U	2.8 U
Silver	1.2 U	1.3 U	1.3 Ų	1,3 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U
Thallium	1 U	1.1 U	1.1 U	1.1 U	1 U	1 U	1 U	_ 1 U	1.1 U	1 0
Zinc	48	29	800	21	23	19 U	480	22	2000	82
Cyanide	0.26 U	0.26 U	0.27 U	0.27 U	0.26 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U
Phenol	1.3 U	1.3 U	1.4 U	1,3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U
% Solids	96	95	92	94	97	96	96	_ 97	92	96

Notes:

3.00

NJDEP - New Jersey Department of Environmental Protection mg/Kg - Miligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

## Table 6 Summary of Total Petroleum Hydrocarbons Soil Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Oliani Sattylė ID Sattyling Derfit (ff) Varifecti Sample II. Sattyling Dela: Linius	MW-KS SS-13 Asketsa Warran MO/KG	AA94659	MONG BEALE AND AND SECOND BEALE BEA BEA BEA BEA BEA BEA BEA BEA BEA BE	MW-34 7.5-8-0 A494651 W2/1999 MCG/CG	DI-CAZ O.S.T.: A April III aziliyi men micancis	Add to Add to Add to Add to Add to Add to	EFINE DEFIA AADA ISE BZSZIERE MGAG	BH-H2 7.5-8.6 AA94154 87577999 MG/KG	891-14 0.3-1.1 AAR4 (55 8/25/1999 8I/G/K/G
Total Petroleum Hydrocarbons	140	49	13000	36 U	150	35 U	18000	230	9500

Notes

NJDEP - New Jersey Department of Environmental Protection mg/Kg - Miligrams per Kilograms, equivalent to parts per million

U - Not detected at the POL

J - Analyte detected below PQL and/or estimated concentration

## Table 7 Summary of Volatile Organic Compounds Groundwater Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Client Sample ID: Verifiech Sample ID:	MW-N3 AA95333	MW-N4 AA98334	FB-1-092199 AA95336	TB-1-092199 AA95337
Sampling Date:	9/21/1999	9/21/1999	9/21/1999	9/21/1999
Uniter:	UG/L	UGAL	UGAL	UG/L
	0.54.11	254 11 7		
1,1,1-Trichloroethane	0.51 U	0.51 U	0 51 U	0.51 U
1,1,2,2-Tetrachloroethane	0 55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	0 58 U	0.58 U	0.58 U	0.58 U
1,1-Dichloroethane	0.52 U	0 52 U	0.52 U	0.52 U
1,1-Dichloroethene	0.68 U	0. <b>68</b> U	0:68 U	0.68 U
1,2-Dichlorobenzene	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	0.43 U	0 43 U	0.43 U	0.43 U
1,2-Dichloropropane	0.39 ∪	0 39 U	0.39 U	0.39 U
1,3-Dichlorobenzene	0.76 U	0.76 U	0.76 U	0,76 U
1,4-Dichlorobenzene	0.4 U	0.4 ป	0.4 U	0.4 U
2-Butanone	14 Ü	14 U	1.4 U	1.4 U
2-Chloroethylvinylether	1 U	1 U	1 U	1 U
2-Hexanone	076 U	0 76 U	0 76 U	0.76 ∪
4-Methyl-2-Pentanone	0.78 U	0.78 U	0.78 U	0.78 U
Acetone	4.8 U	48 U	48 U	4.8 U
Acrolein	94 U	94 U	9.4 U	94 U
Acrylonitnle	69 U	69 U	69 U	6.9 U
Benzene	0 47 U	0 47 U	0 47 U	0.47 U
Bromodichloromethane	0.85 U	0 85 U	0.85 U	0.85 U
Bromolom	13 U	1.3 U	1 3 U	1.3 U
Bromomethane	1 2 U	12 U	1 2 U	1 2 U
Carbon Disulfide	0.4 U	0.4 U	0.4 U	0.4 U
Carbon Tetrachloride	0 81 U	0.81 U	0 81 U	0,81 U
Chlorobenzene	0 64 U	0.64 U	0 64 <u>U</u>	0 64 U
Chioroethane	2.5 U	2 5 U	2 5 U	2,5 U
Chloroform	0 47 U	0 47 U	0 47 U	0.47 U
Chloromethane	0 65 U	0 65 U	0 65 U	0 65 U
cis-1,2-Dichloroethene	081 U	0.81 U	0 81 U	081 U
cis-1,3-Dichloropropene	0.45 U	0 45 U	0,45 U	0.45 U
di-Isopropyl-ether	0.33 U	0 33 U	0 33 U	0.33 U
Dibromochloromethane	0.7 U	07 U	0.7 U	0.7 U
Dichlorodifluoromethane	0.67 U	0 67 U	0 67 U	0.67 U
Ethylbenzene	0 74 U	074 U	0 74 U	0.74 U
M&P-Xylenes	1 1 U	110	1,1 U	1.1 U
Methyl-t-butyl ether	0 43 U	0 43 U	0 43 U	0 43 U
Methylene Chloride	1.5 U	1 5 U	15 U	1.5 U
O-Xylene	0 69 U	0.69 U	0 69 U	0 69 U
Styrene	0.33 U	0 33 U	0 33 U	0.33 U-
t-Butyl Alcohol	57 U	5 7 U	57 U	5 7 U
Tetrachloroethene	_ 1 U	1 U	1 U	1 U
Toluene	0 45 U	0 45 U	0 45 Ü	0.45 U
trans-1,2-Dichloroethene	1 2 U	1 2 U	12 U	12 U
trans-1,3-Dichloropropene	0.42 U	0 42 U	0.42 U	0.42 U
Trichloroethene	0 79 U	0.79 U	0 79 U	0.79 U
Trichlorofluoromethane	0.81 U	0810	0.81 U	0.81 U
Vinyl Acetate	0 32 U	0 32 U	0 32 U	0 32 U
Vinyl Chloride	1 1 U	1 1 U	110	110

### NOTES

- ug / L Micrograms per Liter, equivalent to parts per billion
  - U Not detected at the MDL
  - J Analyte detected below MDL and/or estimated concentration

GW Analytical Data 3 acre site 6-8-01 xls

### Table 8 Summary of Semivolatile Organics Compounds Groundwater Results Port Newark Container Terminal LLC **Port Newark** Newark, New Jersey

HOMESTANCE B CHICAL STATE COS CHICAL STATE COS CHICAL STATE COST CHICAL STATE CHICAL STATE COST CHICAL STATE CHICAL STATE CH	V.C. S.S. V.C. (et l.) V.C. (et l.)	2000 2000 2000 2000 2000	160 200 300 300 300 300 300 300 300 300 30
,2,4-Trichlorobenzene	_0.43 U	0.43 U	0.43 U
,2-Dichlorobenzene	0.34 U	0.34 U	0.34 U
3-Dichlorobenzene	1.2 U	1 2 U	1.2 U
,4-Dichlorobenzene	0 68 U	0.68 U	0.68 U 2.1 U
,4,5-Trichlorophenol ,4,6-Trichlorophenol	2.1 U	15 U	15 U
4-Dichlorophenol	23 U	2.3 U	23 U
4-Dimethylphenol	2.5 U	25 U	2.5 U
.4-Dinitrophenol	4 U	4 U	4 0
,4-Dinitrotoluene	0 68 U	0.68 U	0.68 U
,6-Dinitrotoluene	0.72 U	0.72 U ·	0.72 U
-Chloronaphthalene	081 U	0.81 U	0.81 U
-Chlorophenol -Methylnaphthalene	3.2 U 4.4 U	3.2 U	3.2 U
-metryinaphulaiene -Methylphenol	3.3 U	33 U	3.3 U
-Nitroaniline	28 U	28 U	2.8 U
Nitrophenol	2.4 U	240	2.4 U
3&4-Methylphenol	3.1 U	310	3.1 U
3,3'-Dichlorobenzidine	2.8 U	2.8 U	2.8 U
3-Nitroanitine	2.5 U	2.5 U	2.5 U
,6-Dinitro-2-methylphenol	2.4 U	2.4 U	2.4 U
I-Bromophenyl-phenylether	0.54 U	0.54 U	0.54 U
-Chloro-3-methylphenol -Chloroaniline	220	2.2 U	2.2 U
1-Chlorophenyl-phenylether	051 U	0.51 U	0.51 U
Nitroaniline	2.9 U	290	2.9 U
1-Nitrophenol	27 U	2.7 U	2.7 U
Acenaphthene	0.39 U	0 39 U	039 U
Acenaphthylene	0.29 Ŭ	0.29 U	0.29 U
Anthracene	0.23 Ū	0 23 U	0.23 U
Benzidine	24 U	24 U 0.25 U	0.25 U
Benzo(a)anthracene Benzo(a)pyrene	0 25 U 0.36 U	0.25 U	0.25 U
Benzo(b)Fluoranthene	0.51 U	0 51 U	0.51 U
Benzo(g,h,liperylene	0.27 U	027 U	0.27 U
Benzo(k)Fluoranthene	0.58 U	0.58 U	_0.58 U
Benzoic Acid	0.53 U	0 53 ∪	0.53 U
Benzyl Alcohol	380	38 U	3.8 U
Bis(2-Chloroethoxy)Methane Bis(2-Chloroethyl)ether	0 4 U	0.4 U	0.4 U
Bis(2-Chloroisopropyl)ether	160	160	1.6 U
Bis(2-Ethylhexyl)phthalate	1.2	076 U	0.76 U
Butylbenzylphthalate	0.49 U	0 49 U	0.49 U
Carbazole	0.29 U	0 29 U	0.29 U
Chrysene	0.27 U	0.27 U	0.27 U
Oi-n-butylphthalate	0.78 U	0.78 U	0.78 U
Di-n-octylphthalate Dibenzo[a,h]anthracene	0.53 U 02 U	0.53 U 0.2 U	0.53 U 0.2 U
Dibenzola, njaninracene Dibenzoluran	25 U	25 U	2.5 U
Diethylphthalale	1.7 U	170	1.7 U
Dimethylphthalate	0 23 U	0.23 U	0.23 U
Fluoranthene	<u>0</u> 26 U	0 26 U	0 26 U
Fluorene	0.26 U	0 26 U	0 26 U
Hexachlorobenzene	041 U	0410	0.41 0
Hexachlorobutadiene	0 91 U	0 91 U	0 91 U 11 U
Hexachlorocyclopentadiene Hexachloroethane	<del>- 11 0</del> -	110	-110
Indeno[1,2,3-cd]pyrene	0 29 U	0 29 U	0.29 Ŭ
Isophorone	0 47 U	0 47 U	0.47 U
N-Nitroso-Di-N-Propylamine	0.94 U	_094 U	0.94 U
N-Nitrosodimethylamine	130	13 U	13 U
N-Nitrosodiphenylamine	064 U	0 64 U	0 64 U
Naphthalene	0 44 U	0 44 U	0.44 U
Nitrobenzene Pentachlorophenol	0 92 U	0 92 U	0 92 U 57 U
ir emacinorogrienoi	570	5 7 U 0.35 U	
			0.36
Phenanthrene Phenol	0 35 U 1.3 U	130	0.35 U

### Summary of Pesticides and . JB Groundwater Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Cleri Sample D			irFB-1-092199
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Challe Site	Vitility)	(*) 333(*(*)	(2000)
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X >			
Aroclor-1016	0.5 Ú	0,5 Ų	0.5 U
Aroclor-1221	0.5 U	0.5 U	0.5 U
Arocior-1232	0.5 U	0.5 U	0.5 U
Aroclor-1242	0.5 U	0.5 U	0,5 U
Arodor-1248	0.5 U	0,5 U	0.5 U
Arocior-1254	0.5 U	0,5 U	0.5 U
Aroclor-1260	0.5 U	0.5 U	0.5 U
Pasticidas			
Aidrin	0.1 U	0.1 U	0.1 U
Alpha-BHC	0.1 U	0.1 U	0.1 U
Beta-BHC	0.1 U	0.1 U	0 1 U
Chlordane	02 U	0.2 U	0.2 U
Della-BHC	0.1 U	0.1 U	0.1 U
Dieldna	0.1 0	0.1 U	0.1 U
Endosultan i	0.1 U	0.1 U	0.1 Ú
Endosulfan II	0.1 U	0.1 U	0.1 Ú
Endoeulfan Sulfate	0.1 U	0.1 U	0.1 U
Endrin	0,1 U	0.1 U	0.1 U
Endrin Aldahyda	0.1 U	0 1 U	0.1 U
Endrin Ketone	Q.1 U	0.1 U	0.1 U
Gamma-BHC	0,1 U	0.1 Ü	0.1 U
Heptachlor	0.1 U	0.1 U	0.1 U
Heptachlor Epoxide	0.1 U	0,1 じ	0.1 U
Vethoxychlor	0.1 U	0.1 U	0.1 U
P,P'-000	0,1 U	0.1 U	0,1 U
P,P'-DDE	0.1 U	0.1 U	0.1 U
P,P'-00T	0.1 U	0,1 U	0.1 U
l'oxaphene	10	1 U	1 U

### NOTES

ug/L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

GW Analytical Date 3 acre site 6-8-01,xls

### Summary of the Priority Pollutant Metals Analysis For Groundwater Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

ellen esemple ()	10,4411		FB41-692199
Verneon Sample ID: Sampling Case: 15 United	Average Stillightus sits		i zavisla. Sa
Antimony	1.5 U	1,5 U	1.5 U
Arsenic	3.7 U	3.7 U	3.7 U
Barium	86	53	4.5 U
Beryllium	0 86 U	0.86 U	0.86 U
Cadmium	1.2 U	1.2 Û	1 2 U
Chromium	10 U	10 0	10 U
Copper	27 U	14	57
ead	310	5	31 U
Mercury	0.19 ∪	0 19 U	0.19 U
Nickel	27	13	12 U
Selenium	37∪	3.7 U	37 U
Silver	0 78 U	0.78 Ú	0.78 U
Thallium	3 6 U	36 U	3 6 U
Zinc	38 U	38 Ú	38 U
Total Suspended Solids	20000	11000	4000 U

NOTES

ug / L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MOL and/or estimated concentration

### T. )11

### Summary of the Chloride, Phenol, and Cyanide Groundwater Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

ON SOMETER Valencaments	VATORICKE)	WWW.ET	THE FOOTING
Simpling Dick	(Epplificity) (Meal	1 <b>(6)</b> (4)(4)(3)(3)	OF THE STATE OF
Cyanide	10 U	10 U	10 U
Phenol	50 U	50 U	50 U
Chloride	520000	5400000	1000 U

### NOTES:

ug / L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

GW Analytical Data 3 acre site 6-8-01 xls

# Summary of Total Petroleum Hydro ons Groundwater Sampling Results Port Newark Container Terminal LLC Port Newark Newark, New Jersey

Client Sample ID:	MW-N3	MW-N4	FB-1-092199
Veriteoli Sample ID:	AA95333	AABE334	AA95336
Sampling Dale:	4/25/1988	9/21/1898	9/21/1989
Unite	UGVL	UQA	UG/L
Total Petroleum Hydrocarbons	1000 U	1100 U	1000 U

NOTES:

ug / L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

### **ACKNOWLEDGEMENT**

### FOR THE PORT AUTHORITY

STATE OF NEW YO	ORK )	
	)ss.	
COUNTY OF NEW	YORK )	
On the	day of	in the year 2003, before me, the
undersigned, a Notar	y Public in and for said	state, personally appeared
, personally known to	me or proved to me on	the basis of satisfactory evidence to be the
individual whose nan	ne is subscribed to the v	vithin instrument and acknowledged to me that
he/she executed the s	ame in his/her capacity,	, and that by his/her signature on the instrument,
the individual, or the	person upon behalf of v	which the individual acted, executed the
instrument.		
		(notarial seal and stamp)

FOR THE LESSEE

STATE OF NEW JERSEY )

(SS. COUNTY OF ESSEX )

On the day of OCTO BER in the year 2003, before me, the undersigned, a Notary Public in and for said state, personally appeared DONALD P. HAMM, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

(notarial seal and stamp)

ANDREA GOC MODAY PUBLIC OF NEW JERSEY Commission Expires 2/27/01

### **ACKNOWLEDGEMENT**

### FOR THE PORT AUTHORITY

STATE OF NEW YORK	)
COUNTY OF NEW YORK	)ss. )

On the day of October in the year 2007, before mention LARRABEE undersigned, a Notary Public in and for said state, personally appeared DIRECTOR PORT COMMERCE DEPT., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

(notarial seal and stamp)

FOR THE LESSEE

Marie M. Edwards
Notary Public, State of New York
No. 01ED4959693
Ouglified in Kings County

Qualified in Kings County Commission Expires Seg. 6, 2006

STATE OF New-Jessy)

Sounty OF Halling)

On the day of Cologo in the year 2003, before me, the undersigned, a Notary Public in and for said state, personally appeared 6ARY WILL MOT, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

ANTONIA M. CRONIN

(notarial seal and stamp)

NOTARY PUBLIC OF NEW JERSEY

My Commission Expires May 7, 2007

NOTARY PUBLIC OF NEW JERSEY My Commission Expires May 7, 2007

### UNANIMOUS WRITTEN CONSENT OF MANAGERS OF PORT NEWARK CONTAINER TERMINAL L.L.C.

The undersigned, being all of the managers of Port Newark Container Terminal L.L.C., a Delaware limited liability company (the "Company"), acting in lieu of a meeting pursuant to Article 9.8 of that certain Limited Liability Agreement dated as of August 1, 2000, as amended, by and among P&O Ports North America Inc., P&O Nedlloyd B.V., and the Company, hereby consent to the adoption of the following resolutions and actions set forth herein as of the date and year set forth below:

WHEREAS, there has been presented to the managers for their consideration a substantially final draft of a certain supplement no. 4 (the "Lease Supplement") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) (the "Lease") between the Port Authority of New York and New Jersey (the "Port Authority") and the Company, relating to the addition of a three-acre area to the Lease (the "Added Space"), as such Added Space is more fully depicted on Exhibit A, Sheet 4 of the Lease.

NOW, THEREFORE, it is

RESOLVED, that the form, terms and provisions of the Lease Supplement be, and hereby are, authorized, adopted and approved, in such form and containing such terms and conditions, with such changes, additions, deletions, amendments or modifications, as the manager executing the same deems necessary, proper or advisable; and it is further

RESOLVED, that all actions taken by the managers of the Company prior to the date of this Unanimous Written Consent which are within the authority conferred hereby are ratified and approved; and it is further

RESOLVED, that the managers and officers of the Company be, and they hereby are, authorized and directed to take such action and execute and deliver on behalf of the Company such documents and/or instruments as may be necessary to accomplish the intent of the resolutions herein; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized, empowered and directed to execute, deliver and cause the performance of the Lease Supplement, in the name and on behalf of the Company, with such changes therein, deletions therefrom or additions thereto as the manager or officer executing the same shall approve, the execution and delivery thereof to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized and empowered to take, from time to time in the name and on behalf of the Company, such actions and execute and deliver such certificates, instruments, notices and documents, including amendments thereto, as may be required from time to time or as such manager or officer may deem necessary, advisable or proper in order to carry out and perform the obligations of the Company under the Lease Supplement, or any other instrument or documents executed pursuant to or in connection with the Lease Supplement; all such certificates, instruments, notices and documents to be executed and delivered in such form

We so mi

as the manager executing the same shall approve, the execution and delivery thereof by such manager to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers of the Company.

The actions taken by the execution of this Unanimous Written Consent shall have the same force and effect as if taken at a meeting of the Board of Managers of the Company duly called and constituted in accordance with the laws of the State of Delaware.

IN WITNESS WHEREOF, the undersigned have executed this Unanimous Written Consent as of this \_\_\_\_\_ day of November, 2003.

Gary Willingt

Michael Seymour

Robert Agresti

Lucas Vos

Michael White

Tom Poordley

### UNANIMOUS WRITTEN CONSENT OF MANAGERS OF PORT NEWARK CONTAINER TERMINAL L.L.C.

The undersigned, being all of the managers of Port Newark Container Terminal L.L.C., a Delaware limited liability company (the "Company"), acting in lieu of a meeting pursuant to Article 9.8 of that certain Limited Liability Agreement dated as of August 1, 2000, as amended, by and among P&O Ports North America Inc., P&O Nedlloyd B.V., and the Company, hereby consent to the adoption of the following resolutions and actions set forth herein as of the date and year set forth below:

WHEREAS, there has been presented to the managers for their consideration a substantially final draft of a certain supplement no. 4 (the "Lease Supplement") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) (the "Lease") between the Port Authority of New York and New Jersey (the "Port Authority") and the Company, relating to the addition of a three-acre area to the Lease (the "Added Space"), as such Added Space is more fully depicted on Exhibit A, Sheet 4 of the Lease.

NOW, THEREFORE, it is

RESOLVED, that the form, terms and provisions of the Lease Supplement be, and hereby are, authorized, adopted and approved, in such form and containing such terms and conditions, with such changes, additions, deletions, amendments or modifications, as the manager executing the same deems necessary, proper or advisable; and it is further

RESOLVED, that all actions taken by the managers of the Company prior to the date of this Unanimous Written Consent which are within the authority conferred hereby are ratified and approved; and it is further

RESOLVED, that the managers and officers of the Company be, and they hereby are, authorized and directed to take such action and execute and deliver on behalf of the Company such documents and/or instruments as may be necessary to accomplish the intent of the resolutions herein; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized, empowered and directed to execute, deliver and cause the performance of the Lease Supplement, in the name and on behalf of the Company, with such changes therein, deletions therefrom or additions thereto as the manager or officer executing the same shall approve, the execution and delivery thereof to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers; and it is further

RESOLVED, that the managers and officers of the Company be, and each of them acting alone hereby is, authorized and empowered to take, from time to time in the name and on behalf of the Company, such actions and execute and deliver such certificates, instruments, notices and documents, including amendments thereto, as may be required from time to time or as such manager or officer may deem necessary, advisable or proper in order to carry out and perform the obligations of the Company under the Lease Supplement, or any other instrument or documents executed pursuant to or in connection with the Lease Supplement; all such certificates, instruments, notices and documents to be executed and delivered in such form

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as the manager executing the same shall approve, the execution and delivery thereof by such manager to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers of the Company.

The actions taken by the execution of this Unanimous Written Consent shall have the same force and effect as if taken at a meeting of the Board of Managers of the Company duly called and constituted in accordance with the laws of the State of Delaware.

IN WITNESS WHEREOF, the undersigned have executed this Unanimous Written Consent as of this \_\_\_\_\_ day of November, 2003.

Michael Seymour

Robert Agresti

Lucas Vos

Michael White

### PORT NEWARK CONTAINER TERMINAL, L.L.C.

### CERTIFICATE OF MANAGER

For purposes of reliance by The Port Authority of New York & New Jersey (the "Port Authority") in connection with supplement nos. 4 and 5 (collectively, the "Lease Supplements") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) between the Port Authority and Port Newark Container Terminal, L.L.C., a Delaware limited liability company (the "Company"), the undersigned hereby certifies that he is a manager of the Company, and further certifies that Don Hamm, whose specimen signature appears below, is the duly appointed President of the Company and that he is authorized to execute and deliver each of the Lease Supplements on behalf of the Company.

Name

<u>Title</u>

Don Hamm

President

IN WITNESS WHEREOF, the undersigned has executed this Certificate as of this 29th day of September, 2004.

Gary Willmot Manager

Specipien Signature

(Joann A. McAiger Ktary Pirkk of Mry 1985

Commission Suples 10/16/2007

### THE PORT AUTHORITY OF MY & REJ

**Engineering Department** Construction Division Materials Engineering Section

### **BORING REPORT**

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PROJECT						OF CONT	RACTOR		BORING NO.	SURFACE ELEV.
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NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger, OER = open end rod, V = vane

FMC Agreement No.: 201132-004 Effective Date: Monday, June 19, 2006 Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018

### ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION PID READINGS

Sheet 2 of 3

PROJECT:	PNN	GLASIOPA	SITE B	SERTH 6	3
BORING No					DATE: 8 25/55
FIELD READ	INGS BY: N		EH		PID Model: MINI RAT
TIME	SAMPLE No.	IN-SITU Split Spoon Reading	HEAD Space Reading	BREATHING Zone Reading	REMARKS
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1	FMC Agn	eement No.:	201132-00	04 Effective	Date: Monday, June 19, 2006 Tuesday, May 22, 2018

ENGINEERING DEPARTMENT .
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

PROJECT: PN NAPORANO SITE	BERTH 63		
LOCATION: Laid out who field as	per Drawing	DATE: 8 35 49	
BORING NO: BH HZ	TOTAL No OF S		
SIGNATURE OF ALL		the	
PRESENT AT SAMPLING			
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### THE PORT AUTHORITY OF MY & MU

Engineering Department Construction Division Materials Engineering Section

### **BORING REPORT**

											SHEET / OF 3
PROJECT						N	AME OF CON	TRACTOR	1	BORING NO.	SURFACE ELEV.
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NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed: A = august OFR = open and rot: V = uses

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### ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION PID READINGS

Sheet Zot 3

PROJECT:	4 69	APORAND	SCTE.	BERTHS	5/16/2
BORING No					DATE: 8/25/99
FIELD READ	MNGS BY: L	1. OUDEL	f		PID Model: MIN, RAE
TIME	SAMPLE No.	IN-SITU Split Spoon Reading	HEAD- Space	BREATHING Zone Reading	REMARKS
Au	/	_	0	$\mathcal{C}$	
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	3		0	0	
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Ţ	FMC Agree	ement No.: 2	01132-004	Effective D	Date: Monday, June 19, 2006

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

			Sheet of 5
PROJECT: PN NG PBran	o Site 1.	Breth 63	
PROJECT: PN NG PORGEN LOCATION: Laidout in the field as	per draw, na	DATE: 8/25	199
BORING No: BH- N3	•	OF SAMPLES:	
		<del></del>	
SIGNATURE OF ALL	5 O	L	
PRESENT AT SAMPLING			· · · · · · · · · · · · · · · · · · ·
RELINQUISHED TO DAR		95/49 RECEIVED	<u> </u>
BY (SIGN)	TIME	BY (SIGN)	
RELINQUISHED	DATE	RECEIVED	
BY (SIGN)	TIME	BY (SIGN)	
RELINQUISHED	DATE	RECEIVED	
(SIGN)	TIME	BY LAB	
REMARKS: 2 Samples to	I owing:	ona pt. Jans,	2 UUAS
JAC# E150 0.5'-1.5'			
JAR# E150 0.5'-1.5'  JAR# E149 7.5'-8'			
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### THE PORT AUTHORITY OF MYS MA

Engineering Department Construction Division Materials Engineering Section

### **BORING REPORT**

										SHEET / OF Z
PROJECT					N/	ME OF CONT			BORING NO.	SURFACE ELEV.
LY 17	AFORAN	10 SITE - BI	ERTH	63		CRAIL	1 DRI	11,06	BH-N4	
LOCATION	1 1	h c	. 1		^				CONTRACT NO.	DATE
	Jour	in the f			1	er d(9	wing		426-99-007	8/25/99
SPOON	-	CASING SI	IZE HOLE	TYPE		·	<del></del>	GRO	OUND WATER LEVEL	
5.	o.o: - ∂ ?	8/0=10. H.S. Pu	141	· ***		Oate	Time	Oepth		Remarks
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DRILLER	FALL	30.	# FALL	·		\$ 25		0.0	1 10000	- 27 -
DNILLEN	6, 6	burns			1 }		·	}		
INSPECTOR	_			<del>-</del>	1		├ <del></del>	<del>                                     </del>		
	М,	Ounell			' }				}	
CASING	<u> </u>	SPOON	RE- 1	SAMP.	T		³SA'	MPLE DES	CRIPTION AND REMA	RKS
BLOWS/FT.	DEPTH	BLOWS/6	COA.D	NO.			LII		ES CHANGE OF PRO	FILE
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### ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION PID READINGS

PROJECT:	Pr	NAPO	16 V VD 4	SITE -	BERTH 63	Sheet Col
BORING No.			<u> </u>	<del></del>	DATE: 8 3	5 199
FIELD READ		1. OUDEH			PID Model: Mini	PΛε
	SAMPLE	IN-SITU Split Spoon	HEAD Space	BREATHING Zone		REMARKS
TIME	<b>N</b> o	Reading	. Reading	Reading		
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

		SI	neer 3 of 3
PROJECT: PN - NAPORANE	) SITE - BER	TH 63	
LOCATION: Laid out in the file	eld as per draw.	DATE: 8/25/99	
BORING No: BH- N4		F SAMPLES: 2	
SIGNATURE OF ALL	1/2 O-	he	
PRESENT AT SAMPLING			
RELINQUISHED MESS ON	LL DATE 8/25,	RECEIVED	
BY (SIGN)	TIME	BY (SIGN)	
RELINQUISHED	DATE	RECEIVED	
BY (SIGN)	TIME	BY (SIGN)	
RELINQUISHED	DATE	RECEIVED	
RY (SIGN)	TIME	BY LAB	
REMARKS 2 Samples to	iken in 2 ork	of JAR, 2 WOAS	
and the for	llowing J	pt. JAR, 2 UOAS AR # 2153 000	5'-1.5
		AR# E154 7	5'-81
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### THE PORT AUTHORITY OF MY & MU

**Engineering Department** Construction Division Materials Engineering Section

### **BORING REPORT**

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PROJECT	W	C T 1	0 -	<b>/</b>		_		MW-N3	SURFACE E	LEV
LOCATION	MODOren	a SiTe, 1	701116	ಚ	1 Craig	Dr. 11/12		CONTRACT NO.	DATE	
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SPOON	1 00/10	Flold as Po	V 1/94	JAP E TVDE	<del></del>					177
3 .	- 23/4	11.0. Durs	אלין איזיני	AN JOY			<del>,                                      </del>	UND WATER LEVEL		
HAMMER			· _ ] & p	MNJOY	- Oate	Time	Depth		Remarks	
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DRILLER	FALL 30		# FALL		113	110-	8.0	1,02	<del></del>	<del></del>
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INSPECTOR	<u>_</u>	- 30cm							<del></del>	
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CASING	-	SPOON	RE- '	SAMP.	<u>                                     </u>		L MDIE DES	CRIPTION AND REMA		
BLOWS/FT.	DEPTH	BLOWS/6"	COA.D	NO.				ES CHANGE OF PRO		0.0
Hand	0	V . 1	Fill	<u> </u>	MISCHILL	5,11, Cave	100 000	(1 yerd 1-1/M, DO	T EXC	0.7
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NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U ~ undisturbed, A = auger; OEH = open end rod, V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

### **PORT AUTHORITY OF NY & NJ**

### Engineering Department - Materials Division

Engineering Department - Materials Division	
Well Installation Report	Sheer Zor y
PN- Naparana SiTa, Borth 63	CONTRACT NO  426-99-006  CONTRACTOR
Asland Outin Field asper Drowing	Croso
WELL NO WELL TYPE MONITON DYONG ORILLES	Osus 9/7/99
Well Development Report (NOTE WATER LEVEL READINGS FROM TOP OF PVC)	
DATE 9/7/99 WATER LEVEL BEFORE 6.8 WATER LEVEL AFTER 8,1	TAKEN MINUTES AFTER
7" dia. Manhole cover ————————————————————————————————————	
i I i I i I i i i i i i i i i i i i i i	o of surface
L1 = <u>03'</u>	ement grout
L2 = 4.7' - L2	o of bentonite seal
13-10.0'	of well gravef filter
Cap 7/1	om of well
Boring diameter	

Helo Back Fill 15-16 with woll Gravel

### ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION PID READINGS

PROJECT: PN- Naporano S.T. Beyth 63

BORING No. MW-N3

FIELD READINGS BY: O Howe PID Model: Mini RPE

TIME	SAMPLE No.	IN-SITU Split Spoon Reading	HEAD- Space Reading	BREATHING Zone Reading	REMARKS
AM			0.3		
1	2		0,2		<del></del>
	3		0.3		
PM	4		0.2		
V	\$		od		
BM	b		00		
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ENGINEERING DEPARTMENT MATERIA\_S ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

			Sheet 4 of 5
PROJECT: PN- Napornio	Site Boron63		
LOCATION: Dolaworth	Color	DATE: 9/3/9	19
BORING No: MU-N3		F SAMPLES: 7	
SIGNATURE OF ALL			
PRESENT AT SAMPLING			
RELINQUISHED	DATE 9/3	199 RECEIVED	
BY (SIGN)	TIME 134	BY (SIGN)	
RELINQUISHED	DATE	RECEIVED	
BY (SIGN)	TIME	BY (SIGN)	· · · · ·
RELINQUISHED	DATE	RECEIVED	
BY (SIGN)	TIME	BY LAB	
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### THE PORT AUTHORITY DE MY GIVE

Engineering Department Construction Division Materials Engineering Section

### **BORING REPORT**

PROJECT						N.	AME OF CONT	RACTOR		BORING NO.	SHEET	OF (
	Napa	rand	$\leq 170$	Berth	63		Craise	Dr.11	wr/	Nu-NY		
LOCATION	/outin	flela	1 95 Por	Draw	yive		<del></del>		<i>-</i>	CONTRACT NO. 476-99-006	DATE 9/	3/99_
									GR	OUND WATER LEVEL		_ <b></b> -
3 .	0.0. 8 18.		HAMMER	MAT	UNITOR		. Date _	. Time	Depth		Remarks	
	5-1-10) FALL 30	<u>7.</u>		FALL	-		9/3/99	850	8.0	7.p.+ 5	<u> </u>	<u>-</u>
DAILLER		OSU	<u>c4</u>				ļ		<u> </u>	<u> </u>		
INSPECTOR D Howe												
CASING BLOWS/FT.	S/FT. DEPTH BLOWS/6" COV'D NO.						SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE					
March		Hyn		Ful/	)							<del>-</del> -
Augr		//	HUSW		 		MISC Fill	- Sandy	Popha	IT, Motol, woo	Y EIC	7.0
					2	F	F,11- M-	- <u></u> F_ Brow <u>u</u>		Y, TrS, TI, TIGran	- TV CIND	pm 4,
	5		]		3			- <del></del>		J. Tr Ground Tr.	<u> </u>	
Holly)	 	2	4-21				<u>''''</u>	_ <u> DL</u> @ <u>U</u> L	() <u>Ja</u> No	<u> </u>	<i></i>	
Stem			3-34	18"	4_		Samo					
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		<del></del>	-1/	18"	6							
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	NOTE	:S. 1 —	- Length re	covered; (	)* — Loss	s of	Sample, T -	Trap used				

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### PORT AUTHORITY OF NY & NJ Engineering Department - Materials Division

HEMMIKS

Well Installation Report				Sheet Zot 'y		
PROJECT PN-Naparana SITO, Bon LOCATION By Laid OUTIN Flood 95 WELL NO WELL TYPE MW-NY 'BY MON	Ty 63 Pa Drowney	INSPECTOR	DAILLEA	CONTRACT NO  YY6-99-00 C  CONTRACTOR  CHO/E		
WELL HO WELL TYPE YOUR NOW	citor	DHow	D Oscal	9/3/99		
Well Development Report INOTE WATER LEVEL ACADINGS FROM TOP OF PVC)						
DATE 9 7/99 WATER LEVEL BIFFORE	ole cover —	ER LEVEL AFTER 7,	7   TAKEN 10	MINUTES AFTER		
L1 = <u>03</u> (	*		— Top of surface & cement grout			
L2 = 4.7' $L3 = 15.0'$		<b>1888</b>	Top of bentonite			
L3		740 790	/	I IIIIer		
	Can —	<u>7"</u>	Bottom of boring			
Boring diameter						

### ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION PID READINGS

		Sheet	3 01 4
PROJECT: PN- Naporana SITA, BONTH 67			
BORING NO. MW-NY	DATE:	9/3/99	
FIELD READINGS BY: O Howe	PID Model:	Mu, RAE	

LU REAU	INGS BY: (	U NOUL			PIO Model:	INVIVITE
TIME	SAMPLE No.	IN-SITU Split Spoon Reading	HEAD Space Reading	BREATHING Zone Reading		REMARKS
AX			1,0			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
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	3		0.3			
	4		00			
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	1		122 004 Ef	factive Date		

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

		Sheet 7 of
PROJECT: PN- Naparque S. Te	Beron 63	
LOCATION: Dolard out or Fold	/ 	DATE: 9/3/99
BORING No: MW-NY	TOTAL No. OF SA	MPLES: 2
SIGNATURE OF ALL		
PRESENT AT SAMPLING		
RELINQUISHED	DATE 9/7/75	RECEIVED
BY (SIGN)	TIME 12	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY LAB
REMARKS:		
9-Sc11 Sample 5#124 e	adin 1-16g	Just Methonal Sul Bo